

# ***Cancer Incidence in New Jersey, 1997-2001***

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## **INTRODUCTION**

The following tables present statewide, age-adjusted incidence rates for all cancers diagnosed among New Jersey residents during the period 1997-2001. For each year, the age-adjusted incidence rates per 100,000 population are shown for 59 categories of cancer sites and for all sites combined. The incidence data for 2001 should be considered preliminary.

The primary purpose of this report is to provide 1997-2001 data to health planners, researchers and the public. Data are provided statewide for four population subgroups: white males, white females, black males, black females. Rates are also provided by gender for all races combined.

## **TECHNICAL NOTES**

### **Registry Overview**

The New Jersey State Cancer Registry is a population-based cancer incidence registry that serves the entire state of New Jersey, with a population of over 8.4 million people. The NJSCR was established by legislation (NJSA 26:2-104 et. seq.) and includes all cases of cancer diagnosed in New Jersey residents since October 1, 1978. New Jersey regulations (NJAC 8:57A) require the reporting of all newly diagnosed cancer cases to the NJSCR within three months of hospital discharge or six months of diagnosis, whichever is sooner. Reports are filed by hospitals, diagnosing physicians, dentists, and independent clinical laboratories. Every hospital in New Jersey is now reporting cancer cases electronically. In addition, reporting agreements are maintained with New York, Pennsylvania, Delaware, Florida, Maryland, and North Carolina so that New Jersey residents diagnosed with cancer outside the state can be identified. Legislation in 1996 strengthened the Registry by (1) requiring electronic reporting, (2) requiring case abstracting by certified tumor registrars and (3) establishing penalties for late or incomplete reporting. Timely reporting of cancer data is required by law.

All primary invasive and *in situ* neoplasms are reportable to the NJSCR, except cervical cancer *in situ* diagnosed after 1994 and certain carcinomas of the skin. The information collected by the NJSCR includes basic patient identifiers, demographic characteristics of the patient, medical information on each cancer diagnosis (such as the anatomic site, histologic type and summary stage of disease), and vital status (alive or deceased) determined annually. For deceased cases, the underlying cause of death is also included. The primary site, behavior, grade, and histology of each cancer are coded according to the *International Classification of Disease for Oncology (ICD-O)*, 2<sup>nd</sup> and 3<sup>rd</sup> editions. The NJSCR follows the data standards promulgated by the North American Association of Central Cancer Registries (NAACCR), including the use of the Surveillance, Epidemiology, and End Results (SEER) multiple primary rules.

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The NJSCR is a member of NAACCR, an organization that sets standards for cancer registries, facilitates data exchange, and publishes cancer data. The NJSCR has been a participant of the National Program of Cancer Registries sponsored by the Centers for Disease Control and Prevention since it began in 1994 and is one of the National Cancer Institute's SEER expansion registries.

### **Data Sources**

New Jersey cancer incidence data were taken from the May 2003 analytic file and tabulated using SEER\*Stat (<http://seer.cancer.gov/ScientificSystems/SEERStat/>), a statistical software package distributed by the National Cancer Institute. U.S. cancer incidence data were obtained from NAACCR's publication, *Cancer in North America 1996-2000*. The 1997-2000 population estimates were provided by the National Cancer Institute's SEER Program. Due to the fact that 2001 population data were not available at the time the 2001 incidence rates were calculated, 2000 population data were used for 2001.

For this report, rates were calculated for invasive cancers only with the exception of cancer of the bladder, for which *in situ* cases are included. The reason for excluding the *in situ* cases for the other cancers is that data on cancer incidence for the U.S. exclude *in situ* cases or include *in situ* cases separately from the invasive cases. Statistics for *in situ* cancers of the breast are presented but these cancers are not included in the rates and counts for all sites. These methods are in accordance with standard practice in the U.S.

Out-of-state residents are excluded from New Jersey rates. Persons of unknown age and/or gender are also excluded. Race-specific information is not shown separately for persons of non-white or non-black races (including unknown race), but these persons are included in the "all races" data.

The NJSCR also follows the guidelines and standard practices of the SEER Program in determining multiple primary cancers for an individual. An individual may develop more than one type of cancer within a given year. Following the SEER multiple primary rules, patients could therefore be counted more than once if they were diagnosed with two or more primary cancers.

### **Data Quality**

NAACCR has awarded the NJSCR the Gold Standard, the highest standard possible, for the quality of the 1995 through 2000 data. The criteria used to judge the quality of the data were completeness of cancer case ascertainment, completeness of certain information on the cancer cases, percent of death certificate only cases, percent of duplicate cases, passing an editing program, and timeliness. The NJSCR has consistently achieved the highest level of certification for its data since the inception of this award.

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Completeness of reporting was estimated by comparing New Jersey and U.S. incidence to mortality ratios for whites, standardized for age, gender, and cancer site. The data used to generate these ratios were the cancer incidence rates for all SEER registries combined. Using these standard formulae, it is possible for the estimation of completeness to be greater than 100 percent. For 2001, the completeness of case reporting was estimated as 104.9 percent at the time this report was prepared.

While our estimates of completeness are very high, some cases of cancer among New Jersey residents who were diagnosed and/or treated in out-of-state facilities may not yet have been reported to New Jersey by other state registries. This fact should be considered in interpreting the data for the more recent years. However, these relatively few cases will not significantly affect the cancer rates, or alter the overall trends presented in this report.

It should also be noted that minor fluctuations might be seen from previous incidence reports due to ongoing editing and review of the data. Compared to preliminary data for 2000 published in our last report, 2000 incidence rates for total cancer in this report increased by 1.7 percent for males and 1.3 percent for females. Similarly, the 2001 incidence rates presented here are expected to increase in the next report.

Other 2001 data quality indicators measured were as follows:

Incidence:

- Percent death-certificate-only cases: 1.9 percent
- Percent of unresolved duplicates: < 0.1 percent
- Percent of unknown race: 1.5 percent
- Number of unknown age: 11
- Number of unknown gender: 12

### **Suppression of Rates and Counts Under Five**

It should also be noted that the annual rates for relatively uncommon cancers tend to fluctuate substantially from year to year because of small numbers of cases, particularly in minority populations. Rates generated from small numbers may not accurately reflect the true rate. For this report, rates were suppressed where counts were less than 5 as a way to ensure a greater level of statistical reliability.

### **Age-adjusted Rates and the Year 2000 Standard**

The U.S. Department of Health and Human Services requires that health data be age-adjusted using the U.S. Year 2000 population as a standard, beginning with the 1999 reporting year. Our prior report *Cancer Incidence and Mortality in New Jersey 1996-2000*, issued December 2002 was the first time the 2000 population standard was used for our reports. Prior to the release of 1999 data, various federal and state agencies calculated

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disease rates using different U.S. population standards, including the 1940 and 1970 populations. Our report *Cancer Incidence and Mortality in New Jersey, 1995-1999*, issued September 2001, used the former 1970 Population Standard for all five years and also illustrated the effect on 1999 incidence rates of changing the population standard from 1970 to 2000.

Today, people are living longer than in the past and the average age of the U.S. population is greater than it was thirty years ago. Consequently, since cancer occurs more frequently in older people, today's U.S. population will have more cases of cancer than in the past. Calculation of disease rates based on the 2000 population structure provides a more realistic and consistent standard of measurement.

The age-adjusted rate is calculated by applying a series of weights to the age-specific rates. The weights are the respective proportions of the standard population in each age group. The new 2000 population standard reflects the age distribution of the current U.S. population and therefore has higher weights in older age groups. For example, the 2000 standard population has higher weights than the 1970 standard population for all groups age 70 and over. A more complete discussion of this topic is available in a previous incidence report, *Cancer Incidence in New Jersey, 1995-1999*, which can be found through our web site at <http://www.state.nj.us/health/cancer/statistics.htm>.

Calculations using the 2000 standard population do not indicate a change in cancer incidence or occurrence—only a different representation of the rates of reported diseases. Using the 2000 standard population will produce standardized cancer rates that appear to be about 20 percent higher than standardized cancer rates produced using the 1970 or earlier standard population.

### **Calculation of Rates**

A cancer incidence rate is defined as the number of new cases of cancer detected during a specified time period in a specified population. These rates are most commonly expressed as cases per 100,000 population. Cancer occurs at different rates in different age groups, and population subgroups defined by gender and race have different age distributions. Therefore, before a valid comparison can be made between rates, it is necessary not only to adjust the rates by age but also to standardize the rates to the age distribution of a standard population. In this report, the 2000 U.S. population standard was used. Records that were missing gender, age, or race could not be included in the rates presented in this report. Since the number of records so affected is very small, the rates are virtually unaffected by the non-inclusion of these records.

The first step in this procedure was to determine the age-specific rates. For each age group for a given time interval (within each race-gender group, for the entire state), the following formula was applied:

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$$r_a = \frac{n_a}{t \times P_a}$$

where:

- $r_a$  = the age-specific rate for age group a,  
 $n_a$  = the number of events (cancer diagnoses) in the age group during the time interval,  
 $t$  = the length of the time interval (in years), and  
 $P_a$  = average size of the population in the age group during the time interval (mid-year population or average of mid-year population sizes).

In order to determine the age-adjusted and standardized rate, a weighted average of the age-specific rates was calculated, using the age distribution of the standard population to derive the age-specific weighting factors (Rothman, 1986). This is the technique of direct standardization, which uses the following formula:

$$R = \frac{\sum_{a=1}^n r_a \times Std.P_a}{\sum_{a=1}^n Std.P_a}$$

where:

- $R$  = the age-adjusted rate  
 $r_a$  = the age-specific rate for age group a, and  
 $Std.P_a$  = the size of the standard population in each age group a.

While age adjustment and standardization facilitates the comparison of rates among different populations, there can be important age-specific differences in disease occurrence, which are not apparent in comparisons of the age-adjusted rates (Breslow and Day, 1987).

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**Table 1. Age-adjusted Incidence Rates, Males All Races Combined**

Cancer Site	Total Cases	Rates				
		1997	1998	1999	2000	2001 Prelim.
<b>All Sites</b>	115,026	638.2	631.6	619.6	623.7	628.0
<b>Oral Cavity and Pharynx</b>	2,910	16.4	16.0	14.5	15.3	14.3
Lip	138	1.0	0.9	0.6	0.7	0.7
Tongue	803	3.7	4.8	3.9	4.0	4.3
Salivary Gland	314	1.8	1.9	1.4	1.8	1.7
Floor of Mouth	219	1.5	1.2	1.2	0.8	0.9
Gum and Other Mouth	374	2.3	2.1	1.8	2.0	1.8
Nasopharynx	190	0.9	0.9	1.1	1.1	0.8
Tonsil	361	1.7	2.0	1.6	2.1	1.8
Oropharynx	121	0.9	0.4	0.6	0.9	0.4
Hypopharynx	285	1.5	1.3	1.5	1.6	1.6
<b>Digestive System</b>	23,323	132.5	135.2	130.8	126.8	125.4
Esophagus	1,634	8.8	9.5	8.7	8.9	8.4
Stomach	2,577	15.7	15.3	15.1	12.5	13.6
Small Intestine	383	1.7	2.1	2.2	2.2	2.1
Colon and Rectum	13,805	80.0	80.4	78.4	76.1	72.5
Colon excluding Rectum	9,621	56.9	56.7	55.4	53.0	50.9
Rectum and Rectosigmoid Junction	4,184	23.2	23.7	23.0	23.1	21.7
Anus, Anal Canal and Anorectum	197	1.3	1.1	1.2	0.7	1.1
Liver and Intrahepatic Bile Duct	1,509	7.1	8.0	7.1	9.0	9.6
Liver	1,334	6.0	6.9	6.2	8.0	8.6
Intrahepatic Bile Duct	175	1.1	1.1	0.9	1.0	0.9
Gallbladder	205	1.5	1.3	0.8	1.1	1.1
Pancreas	2,461	13.3	13.8	14.1	13.5	14.1
<b>Respiratory System</b>	18,707	108.6	109.1	98.9	100.1	96.5
Larynx	1,561	9.2	8.6	7.6	8.1	8.2
Lung and Bronchus	16,424	95.3	96.4	87.7	87.8	84.2
<b>Bones and Joints</b>	225	1.0	1.2	1.0	1.0	1.4
<b>Soft Tissue (Including Heart)</b>	720	3.7	4.0	3.9	3.6	3.7
<b>Skin (Excluding Basal and Squamous)</b>	4,364	24.7	22.7	22.0	22.6	24.6
Melanoma of the Skin	3,840	22.0	19.7	19.6	19.6	21.7

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

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**Table 1 (continued). Age-adjusted Incidence Rates, Males All Races Combined**

Cancer Site	Total Cases	Rates				
		1997	1998	1999	2000	2001 Prelim.
<b>Breast</b>	346	1.6	1.4	1.7	2.2	2.4
<b>Male Genital System</b>	37,436	207.2	191.7	200.0	207.7	206.6
Prostate	36,076	201.0	185.0	193.4	200.8	199.5
Testis	1,149	5.1	5.3	5.6	5.5	5.8
Penis	163	0.8	1.1	0.7	1.1	0.9
<b>Urinary System</b>	11,827	62.9	66.0	67.1	65.7	66.7
Urinary Bladder (Including in situ)	8,092	44.5	45.2	46.8	45.4	46.3
Kidney and Renal Pelvis	3,449	17.1	19.0	18.4	18.4	19.2
Ureter	194	1.0	1.3	1.1	1.1	1.0
<b>Eye and Orbit</b>	196	1.2	1.2	0.6	1.2	0.9
<b>Brain and Other Nervous System</b>	1,587	8.5	8.7	8.0	8.4	7.5
Brain	1,477	8.0	8.1	7.3	7.9	6.9
<b>Endocrine System</b>	1,022	4.2	4.8	5.1	6.1	5.5
Thyroid	840	3.4	3.9	4.2	5.2	4.4
<b>Lymphomas</b>	5,508	28.7	30.9	29.2	28.1	29.9
Hodgkin Lymphoma	712	3.5	3.7	3.8	3.2	3.6
Non-Hodgkin Lymphoma	4,796	25.2	27.2	25.5	24.9	26.3
<b>Myelomas</b>	1,292	7.2	7.5	6.7	7.5	7.0
<b>Leukemias</b>	2,888	16.2	16.3	16.1	14.4	15.7
Lymphocytic Leukemia	1,342	6.8	7.9	7.5	6.7	7.6
Acute Lymphocytic Leukemia	319	1.5	2.1	1.8	1.2	1.5
Chronic Lymphocytic Leukemia	880	4.6	5.2	5.1	4.8	5.2
Myeloid and Monocytic Leukemia	1,333	8.2	7.1	7.1	6.5	7.2
Acute Myeloid Leukemia	861	5.0	4.3	4.8	4.0	5.1
Acute Monocytic Leukemia	52	0.2	0.3	0.4	0.3	0.1
Chronic Myeloid Leukemia	382	2.7	2.2	1.8	2.0	1.7
Other Leukemia	213	1.2	1.3	1.5	1.3	1.0
<b>Ill-Defined &amp; Unspecified Sites</b>	2,675	13.7	15.0	14.0	13.0	* 20.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

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**Table 2. Age-adjusted Incidence Rates, Females All Races Combined**

Cancer Site	Total Cases	Rates				
		1997	1998	1999	2000	2001 Prelim.
<b>All Sites</b>	110,304	459.2	461.7	448.8	449.4	451.5
<b>Oral Cavity and Pharynx</b>	1,517	6.2	6.2	7.1	5.7	6.0
Lip	74	0.3	0.3	0.3	0.2	0.3
Tongue	376	1.4	1.5	1.8	1.5	1.7
Salivary Gland	251	1.1	1.2	0.9	1.0	1.1
Floor of Mouth	107	0.6	0.6	0.4	0.4	0.4
Gum and Other Mouth	331	1.3	1.3	1.7	1.2	1.1
Nasopharynx	68	0.3	0.3	0.4	0.2	0.3
Tonsil	123	0.5	0.4	0.8	0.4	0.5
Oropharynx	56	0.1	0.2	0.4	0.3	0.2
Hypopharynx	76	0.4	0.3	0.3	0.3	0.3
<b>Digestive System</b>	21,508	86.5	86.8	82.6	82.9	82.6
Esophagus	618	2.6	2.3	2.4	2.5	2.4
Stomach	1,703	7.0	7.6	6.6	6.3	5.8
Small Intestine	322	1.1	1.3	1.5	1.3	1.4
Colon and Rectum	13,895	55.8	56.7	52.6	52.9	53.8
Colon excluding Rectum	10,487	41.7	42.4	39.2	39.3	41.2
Rectum and Rectosigmoid Junction	3,408	14.1	14.3	13.3	13.6	12.6
Anus, Anal Canal and Anorectum	344	1.7	1.2	1.3	1.4	1.5
Liver and Intrahepatic Bile Duct	738	2.9	2.7	2.8	3.1	3.1
Liver	542	2.3	1.7	2.1	2.2	2.5
Intrahepatic Bile Duct	196	0.6	1.0	0.7	0.9	0.6
Gallbladder	436	1.7	1.8	1.7	1.5	1.7
Pancreas	2,835	11.4	11.1	11.1	11.5	10.1
<b>Respiratory System</b>	14,420	58.5	59.6	58.4	57.5	57.6
Larynx	410	1.7	2.2	1.6	1.6	1.6
Lung and Bronchus	13,700	55.4	56.2	55.5	54.7	54.9
<b>Bones and Joints</b>	219	1.0	1.3	0.8	0.9	0.9
<b>Soft Tissue (Including Heart)</b>	677	3.3	2.7	2.4	3.1	3.0
<b>Skin (Excluding Basal and Squamous)</b>	3,233	14.4	13.1	12.5	13.6	14.9
Melanoma of the Skin	2,947	13.0	11.7	11.5	12.5	13.8
<b>Breast (Invasive)</b>	32,707	141.0	140.2	138.5	136.8	133.8
in situ (not included in All Sites)	7,456	29.6	32.2	33.9	33.3	33.5

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

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**Table 2 (continued). Age-adjusted Incidence Rates, Females All Races Combined**

Cancer Site	Total Cases	Rates				
		1997	1998	1999	2000	2001 Prelim.
<b>Female Genital System</b>	14,438	61.3	63.1	61.2	59.9	59.6
Cervix Uteri	2,390	11.1	10.8	10.5	9.8	10.1
Corpus and Uterus, NOS	6,889	28.1	29.7	29.5	28.2	29.3
Corpus Uteri	6,602	26.8	28.2	28.3	27.3	28.2
Uterus, NOS	287	1.3	1.5	1.2	1.0	1.1
Ovary	4,197	17.9	18.7	18.0	17.9	16.2
Vagina	172	0.9	0.5	0.6	0.8	0.8
Vulva	611	2.5	2.6	2.1	2.4	2.4
<b>Urinary System</b>	5,410	22.0	21.1	21.5	21.4	22.2
Urinary Bladder (Including in situ)	3,041	12.0	11.5	11.1	12.8	12.4
Kidney and Renal Pelvis	2,225	9.4	9.1	9.6	8.1	9.2
Ureter	104	0.5	0.4	0.5	0.3	0.4
<b>Eye and Orbit</b>	173	0.7	0.9	0.5	0.7	0.8
<b>Brain and Other Nervous System</b>	1,389	5.9	6.3	6.4	6.0	5.2
Brain	1,271	5.4	5.5	5.9	5.5	4.9
<b>Endocrine System</b>	2,702	8.8	10.1	11.3	14.8	15.2
Thyroid	2,545	8.1	9.3	10.8	14.2	14.4
<b>Lymphomas</b>	5,172	22.1	22.7	20.9	21.0	20.5
Hodgkin Lymphoma	661	2.8	3.1	3.0	3.2	3.1
Non-Hodgkin Lymphoma	4,511	19.3	19.6	17.8	17.8	17.4
<b>Myelomas</b>	1,290	5.1	5.5	4.5	5.2	5.3
<b>Leukemias</b>	2,287	10.1	9.3	9.3	9.5	8.8
Lymphocytic Leukemia	972	4.4	3.7	4.1	4.3	3.8
Acute Lymphocytic Leukemia	268	1.3	1.3	1.2	1.5	1.2
Chronic Lymphocytic Leukemia	648	2.8	2.2	2.7	2.5	2.4
Myeloid and Monocytic Leukemia	1,084	4.5	4.6	4.3	4.4	4.6
Acute Myeloid Leukemia	741	2.9	3.0	3.0	3.0	3.3
Acute Monocytic Leukemia	39	0.2	0.2	0.1	0.2	0.1
Chronic Myeloid Leukemia	269	1.3	1.1	1.1	1.1	1.0
Other Leukemia	231	1.2	1.0	0.9	0.8	0.5
<b>Ill-Defined &amp; Unspecified Sites</b>	3,162	12.5	12.6	10.9	10.3	* 15.0

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

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**Table 3. Age-adjusted Incidence Rates, White Males**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>All Sites</b>	99,013	632.0	627.3	618.1	624.2	616.9
<b>Oral Cavity and Pharynx</b>	2,330	15.4	14.5	14.2	14.6	13.4
Lip	134	1.2	1.0	0.7	0.8	0.8
Tongue	656	3.6	4.5	3.7	3.9	4.2
Salivary Gland	267	1.8	1.8	1.5	1.9	1.6
Floor of Mouth	174	1.5	1.0	1.2	0.9	0.7
Gum and Other Mouth	304	2.0	2.0	1.9	1.9	1.8
Nasopharynx	125	0.7	0.6	1.0	0.8	0.7
Tonsil	288	1.7	1.7	1.5	2.1	1.7
Oropharynx	92	0.8	0.3	0.6	0.8	0.3
Hypopharynx	209	1.4	0.9	1.4	1.2	1.5
<b>Digestive System</b>	20,004	130.7	132.5	129.3	126.1	121.7
Esophagus	1,328	8.1	8.8	8.6	8.5	7.6
Stomach	2,108	14.9	14.5	14.5	11.8	12.2
Small Intestine	312	1.6	1.9	2.0	2.1	2.0
Colon and Rectum	12,138	80.9	80.7	79.1	77.0	71.8
Colon excluding Rectum	8,443	57.3	56.8	55.3	53.4	50.1
Rectum and Rectosigmoid Junction	3,695	23.5	23.9	23.8	23.6	21.7
Anus, Anal Canal and Anorectum	160	1.2	1.0	1.1	0.7	1.1
Liver and Intrahepatic Bile Duct	1,166	6.2	7.2	6.5	8.5	8.4
Liver	1,018	5.2	6.2	5.7	7.4	7.4
Intrahepatic Bile Duct	148	0.9	1.0	0.9	1.1	1.0
Gallbladder	180	1.5	1.3	0.8	1.1	1.2
Pancreas	2,131	13.1	13.6	13.5	13.6	14.4
<b>Respiratory System</b>	16,065	106.5	107.4	97.5	98.9	95.3
Larynx	1,280	8.8	8.4	7.2	7.6	7.7
Lung and Bronchus	14,127	93.7	94.5	86.4	86.8	83.5
<b>Bones and Joints</b>	191	1.1	1.3	1.1	1.2	1.5
<b>Soft Tissue (Including Heart)</b>	622	3.7	4.3	4.0	3.7	3.9
<b>Skin (Excluding Basal and Squamous)</b>	4,182	27.4	25.3	24.9	25.7	27.1
Melanoma of the Skin	3,767	25.1	22.5	22.7	22.7	24.3

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 3 (continued). Age-adjusted Incidence Rates, White Males**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>Breast</b>	296	1.5	1.5	1.6	2.3	2.3
<b>Male Genital System</b>	31,336	198.4	186.6	193.4	201.5	195.2
Prostate	30,079	191.3	179.0	185.7	193.6	187.1
Testis	1,077	6.1	6.3	6.7	6.6	6.9
Penis	137	0.8	1.1	0.6	1.0	0.9
<b>Urinary System</b>	10,914	65.8	69.8	71.4	69.2	70.5
Urinary Bladder (Including in situ)	7,626	47.3	48.4	50.9	48.4	49.3
Kidney and Renal Pelvis	3,018	17.1	19.3	18.6	18.8	19.8
Ureter	187	1.1	1.4	1.2	1.2	1.1
<b>Eye and Orbit</b>	183	1.4	1.2	0.7	1.4	1.0
<b>Brain and Other Nervous System</b>	1,396	9.3	8.9	8.3	9.1	7.6
Brain	1,306	8.7	8.3	7.6	8.6	7.2
<b>Endocrine System</b>	885	4.3	5.2	5.5	6.4	5.6
Thyroid	734	3.6	4.3	4.5	5.4	4.5
<b>Lymphomas</b>	4,756	29.8	31.1	29.4	29.3	29.9
Hodgkin Lymphoma	594	3.6	3.8	3.8	3.3	3.9
Non-Hodgkin Lymphoma	4,162	26.2	27.3	25.6	26.0	26.0
<b>Myelomas</b>	1,015	6.5	6.6	6.1	7.0	6.2
<b>Leukemias</b>	2,534	16.3	16.6	16.7	15.1	16.2
Lymphocytic Leukemia	1,196	6.9	8.3	7.9	7.1	8.1
Acute Lymphocytic Leukemia	267	1.5	2.2	1.8	1.3	1.6
Chronic Lymphocytic Leukemia	802	4.5	5.5	5.4	5.0	5.4
Myeloid and Monocytic Leukemia	1,154	8.3	7.1	7.3	6.7	7.1
Acute Myeloid Leukemia	761	5.2	4.4	5.1	4.2	5.2
Acute Monocytic Leukemia	42	0.2	0.3	0.4	0.4	-
Chronic Myeloid Leukemia	317	2.7	2.2	1.6	2.0	1.6
Other Leukemia	184	1.1	1.2	1.5	1.3	1.0
<b>Ill-Defined &amp; Unspecified Sites</b>	2,304	13.7	14.6	14.0	12.8	* 19.6

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 4. Age-adjusted Incidence Rates, White Females**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>All Sites</b>	96,038	468.2	471.0	460.9	461.7	459.2
<b>Oral Cavity and Pharynx</b>	1,274	6.1	5.8	7.0	5.8	5.8
Lip	68	0.4	0.3	0.3	0.3	0.3
Tongue	322	1.3	1.5	1.7	1.6	1.6
Salivary Gland	208	1.1	1.1	0.9	1.0	1.0
Floor of Mouth	94	0.6	0.5	0.4	0.4	0.4
Gum and Other Mouth	284	1.3	1.2	1.8	1.2	1.1
Nasopharynx	40	0.3	0.2	0.2	0.1	0.2
Tonsil	105	0.5	0.4	0.8	0.4	0.5
Oropharynx	45	0.2	0.2	0.3	0.2	0.2
Hypopharynx	62	0.3	0.3	0.3	0.3	0.3
<b>Digestive System</b>	18,515	85.3	85.4	81.3	81.3	80.6
Esophagus	491	2.1	2.1	2.3	2.2	2.3
Stomach	1,340	6.5	6.9	5.9	5.5	4.9
Small Intestine	262	1.0	1.3	1.3	1.3	1.3
Colon and Rectum	12,153	55.7	56.6	52.5	53.0	53.3
Colon excluding Rectum	9,164	41.7	42.0	38.7	39.5	40.5
Rectum and Rectosigmoid Junction	2,989	14.0	14.5	13.8	13.5	12.8
Anus, Anal Canal and Anorectum	304	1.7	1.3	1.4	1.5	1.6
Liver and Intrahepatic Bile Duct	612	2.8	2.7	2.6	2.7	2.9
Liver	432	2.2	1.6	1.8	1.9	2.3
Intrahepatic Bile Duct	180	0.7	1.1	0.8	0.8	0.6
Gallbladder	360	1.8	1.5	1.7	1.4	1.6
Pancreas	2,443	11.3	10.9	10.9	11.2	9.8
<b>Respiratory System</b>	12,786	59.8	60.5	60.0	59.6	59.3
Larynx	350	1.8	2.0	1.5	1.6	1.8
Lung and Bronchus	12,164	56.6	57.4	57.2	56.8	56.4
<b>Bones and Joints</b>	183	1.1	1.4	0.8	1.0	0.9
<b>Soft Tissue (Including Heart)</b>	554	3.1	2.7	2.5	3.0	3.0
<b>Skin (Excluding Basal and Squamous)</b>	3,117	16.3	15.1	14.7	16.2	17.3
Melanoma of the Skin	2,866	14.9	13.7	13.7	15.0	16.2
<b>Breast (Invasive)</b>	28,421	145.4	144.5	144.3	141.3	137.0
in situ (not included in All Sites)	6,520	31.4	34.1	36.4	34.8	34.9

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 4 (continued). Age-adjusted Incidence Rates, White Females**

Cancer Site	Total Cases	Rates				
		1997	1998	1999	2000	2001 Prelim.
<b>Female Genital System</b>	12,409	61.8	64.6	63.1	61.6	61.1
Cervix Uteri	1,796	10.2	9.8	10.0	9.0	9.5
Corpus and Uterus, NOS	6,092	28.8	31.1	31.1	29.8	30.7
Corpus Uteri	5,873	27.8	29.8	30.1	28.8	29.7
Uterus, NOS	219	1.0	1.2	1.0	1.0	1.1
Ovary	3,696	18.6	19.6	18.8	18.9	17.0
Vagina	137	0.9	0.5	0.5	0.7	0.7
Vulva	544	2.6	2.8	2.1	2.5	2.4
<b>Urinary System</b>	4,858	22.7	21.9	22.2	22.8	22.7
Urinary Bladder (Including in situ)	2,797	12.6	12.2	11.8	13.8	13.0
Kidney and Renal Pelvis	1,936	9.4	9.2	9.7	8.5	9.1
Ureter	101	0.5	0.5	0.5	0.3	0.5
<b>Eye and Orbit</b>	164	0.8	1.1	0.6	0.8	0.9
<b>Brain and Other Nervous System</b>	1,228	6.2	6.6	6.9	6.5	5.5
Brain	1,124	5.7	5.9	6.4	6.0	5.1
<b>Endocrine System</b>	2,293	9.3	11.2	12.3	15.5	15.8
Thyroid	2,161	8.7	10.3	11.7	14.8	15.0
<b>Lymphomas</b>	4,549	23.1	23.6	21.4	22.0	21.3
Hodgkin Lymphoma	569	3.2	3.5	3.2	3.4	3.4
Non-Hodgkin Lymphoma	3,980	19.9	20.1	18.2	18.6	17.9
<b>Myelomas</b>	980	4.4	4.6	3.9	4.4	4.9
<b>Leukemias</b>	2,010	10.4	9.6	9.7	9.9	9.1
Lymphocytic Leukemia	868	4.6	3.9	4.4	4.5	4.0
Acute Lymphocytic Leukemia	233	1.5	1.4	1.4	1.6	1.3
Chronic Lymphocytic Leukemia	586	2.8	2.4	2.8	2.7	2.5
Myeloid and Monocytic Leukemia	946	4.5	4.7	4.5	4.6	4.7
Acute Myeloid Leukemia	667	3.2	3.2	3.2	3.2	3.5
Acute Monocytic Leukemia	37	0.2	0.2	-	0.3	0.1
Chronic Myeloid Leukemia	216	1.1	1.1	1.1	1.1	1.0
Other Leukemia	196	1.2	1.0	0.9	0.8	0.4
<b>Ill-Defined &amp; Unspecified Sites</b>	2,697	12.5	12.3	10.2	10.2	* 14.1

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 5. Age-adjusted Incidence Rates, Black Males**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>All Sites</b>	12,750	730.6	723.2	698.4	697.7	704.8
<b>Oral Cavity and Pharynx</b>	460	23.8	27.8	16.3	22.8	20.0
Lip	-	-	-	-	-	-
Tongue	114	4.6	7.3	5.4	5.5	4.9
Salivary Gland	37	1.4	3.5	-	.9	2.0
Floor of Mouth	43	2.4	2.4	1.2	-	3.0
Gum and Other Mouth	56	5.1	2.0	1.3	3.6	1.8
Nasopharynx	27	1.5	-	-	1.6	1.1
Tonsil	68	2.2	5.1	2.4	2.9	2.7
Oropharynx	27	2.0	1.5	-	2.3	-
Hypopharynx	63	2.7	4.5	2.1	4.2	2.6
<b>Digestive System</b>	2,568	148.3	151.8	148.5	146.0	145.6
Esophagus	271	14.1	17.1	12.5	15.0	15.4
Stomach	344	22.4	19.5	21.6	18.6	20.8
Small Intestine	51	2.4	3.4	3.6	2.6	2.3
Colon and Rectum	1,321	75.3	79.8	76.4	80.0	75.6
Colon excluding Rectum	962	56.1	58.3	58.2	58.2	57.1
Rectum and Rectosigmoid Junction	359	19.1	21.4	18.2	21.8	18.4
Anus, Anal Canal and Anorectum	37	1.9	1.8	1.9	.9	1.7
Liver and Intrahepatic Bile Duct	213	11.4	8.5	9.9	10.5	16.3
Liver	194	8.6	6.9	8.7	10.2	15.7
Intrahepatic Bile Duct	19	2.7	1.6	-	-	-
Gallbladder	16	1.8	1.6	-	-	-
Pancreas	263	16.0	15.4	19.6	15.3	10.8
<b>Respiratory System</b>	2,313	140.2	141.8	124.6	123.8	121.6
Larynx	250	15.2	11.2	12.0	14.7	13.7
Lung and Bronchus	2,012	121.1	128.3	110.6	107.7	104.1
<b>Bones and Joints</b>	17	0.9	0.7	-	-	-
<b>Soft Tissue (Including Heart)</b>	73	2.3	1.8	4.3	3.6	3.4
<b>Skin (Excluding Basal and Squamous)</b>	104	5.2	5.2	3.4	2.4	4.1
Melanoma of the Skin	19	1.3	-	-	-	1.3

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 5 (continued). Age-adjusted Incidence Rates, Black Males**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>Breast</b>	42	3.3	-	2.1	2.0	3.3
<b>Male Genital System</b>	4,974	294.8	265.4	288.2	287.8	286.4
Prostate	4,912	292.6	262.7	286.5	284.5	283.1
Testis	41	1.0	1.3	1.2	1.3	2.0
Penis	17	-	-	-	1.7	1.3
<b>Urinary System</b>	684	41.7	43.0	37.9	41.6	38.4
Urinary Bladder (Including in situ)	335	23.8	23.3	17.1	23.5	21.8
Kidney and Renal Pelvis	339	18.0	19.1	19.8	17.4	16.1
Ureter	-	-	-	-	-	-
<b>Eye and Orbit</b>	7	-	0.9	-	-	-
<b>Brain and Other Nervous System</b>	116	4.9	6.5	5.5	4.3	4.5
Brain	108	4.5	6.4	5.4	4.1	3.9
<b>Endocrine System</b>	84	3.5	2.1	3.2	5.7	3.4
Thyroid	59	2.3	1.6	2.3	4.0	2.5
<b>Lymphomas</b>	526	18.8	26.5	25.3	20.2	22.6
Hodgkin Lymphoma	91	3.5	3.5	5.2	3.0	2.4
Non-Hodgkin Lymphoma	435	15.3	23.0	20.1	17.1	20.2
<b>Myelomas</b>	237	13.8	14.9	12.4	14.0	14.3
<b>Leukemias</b>	240	15.1	14.4	10.4	8.3	13.1
Lymphocytic Leukemia	93	6.5	5.7	4.2	3.1	4.8
Acute Lymphocytic Leukemia	26	0.9	1.3	1.2	-	-
Chronic Lymphocytic Leukemia	59	5.2	3.8	2.5	2.6	4.0
Myeloid and Monocytic Leukemia	127	6.6	6.9	5.0	4.9	7.9
Acute Myeloid Leukemia	73	3.4	3.7	3.0	2.2	4.7
Acute Monocytic Leukemia	6	0.9	1.3	1.2	-	-
Chronic Myeloid Leukemia	46	2.8	2.8	-	2.5	2.7
Other Leukemia	20	2.0	1.8	1.2	-	-
<b>Ill-Defined &amp; Unspecified Sites</b>	305	13.8	19.2	15.6	14.9	* 23.5

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 6. Age-adjusted Incidence Rates, Black Females**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>All Sites</b>	11,061	428.3	441.5	403.3	408.1	403.1
<b>Oral Cavity and Pharynx</b>	172	6.8	8.1	7.7	4.7	4.1
Lip	-	-	-	-	-	-
Tongue	42	1.5	1.3	2.5	0.9	1.2
Salivary Gland	26	1.1	1.1	-	-	1.0
Floor of Mouth	13	-	1.1	-	-	-
Gum and Other Mouth	33	1.3	2.2	-	1.3	-
Nasopharynx	10	-	-	-	-	-
Tonsil	15	-	-	1.0	-	-
Oropharynx	11	-	-	0.9	-	-
Hypopharynx	12	-	-	-	-	-
<b>Digestive System</b>	2,433	98.9	101.6	93.7	93.2	95.7
Esophagus	108	5.9	3.8	3.6	4.8	2.7
Stomach	267	11.6	11.5	9.2	9.8	11.2
Small Intestine	51	1.4	1.3	3.4	-	3.0
Colon and Rectum	1,459	59.7	60.5	55.6	54.8	57.6
Colon excluding Rectum	1,128	44.2	47.1	44.5	41.5	46.1
Rectum and Rectosigmoid Junction	331	15.5	13.4	11.1	13.3	11.5
Anus, Anal Canal and Anorectum	30	2.1	-	-	0.9	1.2
Liver and Intrahepatic Bile Duct	79	2.4	2.3	3.3	4.0	3.7
Liver	68	2.2	1.8	3.1	2.8	3.5
Intrahepatic Bile Duct	11	-	-	-	1.1	-
Gallbladder	56	1.8	3.9	1.6	2.1	1.9
Pancreas	335	12.7	14.4	14.4	15.3	12.1
<b>Respiratory System</b>	1,437	56.1	62.5	54.1	51.8	53.3
Larynx	55	1.8	3.7	2.3	2.0	-
Lung and Bronchus	1,356	52.8	58.0	51.3	48.6	52.1
<b>Bones and Joints</b>	18	-	0.8	0.8	-	-
<b>Soft Tissue (Including Heart)</b>	95	3.4	3.1	2.1	4.2	3.6
<b>Skin (Excluding Basal and Squamous)</b>	55	2.7	2.4	1.4	1.4	1.8
Melanoma of the Skin	29	1.9	1.1	-	1.0	-
<b>Breast (Invasive)</b>	3,185	118.7	120.5	109.6	122.1	111.4
in situ (not included in All Sites)	628	20.0	22.6	22.9	22.1	24.9

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.

## ***Cancer Incidence in New Jersey, 1997-2001***

**Table 6 (continued). Age-adjusted Incidence Rates, Black Females**

<b>Cancer Site</b>	<b>Total Cases</b>	<b>1997</b>	<b>1998</b>	<b>Rates 1999</b>	<b>2000</b>	<b>2001 Prelim.</b>
<b>Female Genital System</b>	1,560	62.2	61.2	55.2	54.4	51.8
Cervix Uteri	486	19.5	17.7	16.5	17.5	14.0
Corpus and Uterus, NOS	621	24.2	26.1	21.8	20.7	23.8
Corpus Uteri	555	20.8	22.5	19.6	19.3	22.0
Uterus, NOS	66	3.4	3.6	2.3	1.3	1.8
Ovary	348	14.4	14.7	12.5	11.9	10.6
Vagina	30	1.3	-	0.9	1.4	1.3
Vulva	50	1.5	1.5	2.6	2.1	1.5
<b>Urinary System</b>	451	19.9	18.4	17.0	14.9	17.9
Urinary Bladder (Including in situ)	189	8.9	8.5	6.7	7.6	7.8
Kidney and Renal Pelvis	246	10.7	9.5	9.3	6.8	9.4
Ureter	-	-	-	-	-	-
<b>Eye and Orbit</b>	5	-	-	-	-	-
<b>Brain and Other Nervous System</b>	106	3.7	4.9	3.6	3.2	3.5
Brain	97	2.9	4.2	3.4	3.2	3.5
<b>Endocrine System</b>	205	5.7	4.0	5.2	10.0	9.6
Thyroid	188	4.8	3.3	5.0	9.6	8.8
<b>Lymphomas</b>	465	17.0	17.5	18.2	15.3	13.9
Hodgkin Lymphoma	79	1.7	2.7	2.6	2.9	2.3
Non-Hodgkin Lymphoma	386	15.4	14.7	15.5	12.4	11.7
<b>Myelomas</b>	274	10.5	13.0	10.4	12.6	7.6
<b>Leukemias</b>	213	10.2	8.1	6.8	8.0	7.2
Lymphocytic Leukemia	76	3.6	2.8	2.4	3.1	2.4
Acute Lymphocytic Leukemia	24	-	1.1	0.7	-	-
Chronic Lymphocytic Leukemia	48	2.9	1.5	1.3	2.2	1.8
Myeloid and Monocytic Leukemia	107	5.3	3.9	3.9	3.3	3.8
Acute Myeloid Leukemia	56	2.1	2.2	2.0	2.3	1.8
Acute Monocytic Leukemia	-	-	-	-	-	-
Chronic Myeloid Leukemia	41	2.5	1.3	1.1	0.8	1.9
Other Leukemia	30	1.3	1.4	-	1.6	1.1
<b>Ill-Defined &amp; Unspecified Sites</b>	387	11.8	15.2	17.7	12.1	* 20.6

Rates are per 100,000 population and age-adjusted to the 2000 U.S. population standard.

\* Increase in Ill-Defined & Unspecified rates is due to newly reportable ill-defined cases for 2001.

- Counts and rates are suppressed when less than 5 cases to ensure confidentiality and statistical reliability.